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ABSTRACT

The author, as former administrative head of Detroit Northern Systems Company, describes that company's successful approach to the training of the hard-core unemployed. The systems approach emphasizes the achievement of goals and sub-goals through an interplay of program components which include training lines of 'tool stations,' back-up classes which precede the tool line, the remedial classes which feature reading, arithmetic, and communication; and the Social Skills Seminar which is essentially role-playing. The system utilizes programmed instruction that is highly detailed, has a built-in reward system, and provides personal support and counseling for each trainee. (DB)

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Perspectives on Training the Disadvantaged—
The Hard-to-Employ

PREVOCATIONAL TRAINING FOR THE HARD-TO-EMPLOY— A SYSTEMS APPROACH

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PERSONNEL SERVICES REVIEW

Series 2
Perspectives on Training the Disadvantaged —
The Hard-to-Employ

Prevocational Training for the Hard-to-Employ — A Systems Approach

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FORWARD

The Personnel Services Review is an ongoing publication series which has been developed by CAPS to inform personnel workers about new developments in a number of personnel services areas. There will be several different series of the Personnel Services Review. Each series will focus on a broad area of personnel work practice. Within each series there will be a number of specific issues (varying from five to ten depending on the series). Each of these issues will concentrate on a specific practice, procedure or method. The goal of these publications is to enable the reader to: (1) become aware of a practice, procedure or method; (2) learn about the ways in which this practice has been applied by others; (3) understand the underlying theory behind the practice; (4) consider possible applications of the practice in a variety of settings; and (5) consider ways that the practice might be implemented in his own personnel work program.

This particular Personnel Services Review series is entitled, "Perspectives on Training the Disadvantaged—The 'Hard-to-Employ'". Each issue will focus on an activity which has direct relevance for hiring, training, and retaining new workers from a disadvantaged background. The series is intended for use by personnel specialists and training staff in industry and business who wish to learn more about the development of their industrial work force. This series may also be of interest to vocational educators, employment counselors and specialists in the field of vocational education.

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PREVOCATIONAL TRAINING FOR THE HARD-TO-EMPLOY—A SYSTEMS APPROACH

RELEVANCE TO YOU?

Are you aware that providing certain kinds of services to employees before they start to work may assist in their subsequent adjustment to vocational training and development?

Do you know about prevocational training and its various components?

Are you aware that a systems approach may be used to furnish prevocational services to employees?

DEFINITION OF PREVOCATIONAL TRAINING

Prevocational training refers to the directed and focused activities in which an individual participates prior to formalized, more specific vocational instruction. Prevocational training as referred to in this paper consists of a series of pre-exposures, preparatory in nature, which are followed by a planned sequence of on-the-job training, or the acquisition of technical skills in a relevant setting. An underlying assumption is that certain basic skills are essential and should be acquired by an individual to help him acquire vocational skills and make satisfactory behavioral adjustment to the demands of employment. Prevocational training can assist employers to aid development of appropriate behaviors and basic skills in employees who lack information and knowledge of appropriate behavior with respect to job demands.

APPROACH TO PRACTICE

The objectives of a prevocational training course are usually directed at the modification of behavior within four dimensions: basic job skills; communication skills; social skills; and stress tolerance. A personnel manager or training director may use prevocational training to help the new employee understand his responsibilities as an employee to an employer. This may seem quite elementary since most employers expect new workers to possess appropriate job related behaviors.

A. The Systems Approach

In a systems approach, the emphasis is upon achievement of goals and subgoals through an interplay of program components which are considered interrelated and relevant. For example, prevocational training programs which are designed from a systems approach need to:

1. Specify the objectives which are to be achieved.
2. Specify and determine the functions necessary to accomplish the goals and subgoals.
3. Determine the system components which are most likely to effectively perform each of the functions.
4. Determine the value of the measurable dimensions of each relevant component.

The Northern Systems Company, wholly owned subsidiary of Northern Natural Gas Company, has done some pioneering work on a national scale in developing prevocational training programs for the hard-to-employ. The company developed a systems approach to training which incorporated many concepts from learning theory and

psychology. It experimented and produced certain job behaviors in trainees through a system of rewards and reinforcement. The development of job behaviors within four dimensions were considered relevant for employment adjustment. A brief description of the four dimensions follows:

1. Basic Job Skills—ability to follow instructions; development of manual skills; development of attention and concentration span; punctuality; appropriate job attire.
2. Communication Skills—increase ability to understand; improve technical verbalization; develop reading and writing skills.
3. Social Skills—ability to relate effectively to supervisors, peers, and subordinates.
4. Stress Tolerance—to be able to withstand the stresses that accrue from pressure to increase pace of productivity, to follow schedules, and to meet emergencies and deadlines without showing behavioral indications of maladaptation.

With the desired behaviors identified in each of four dimensions, Northern developed four major training components to satisfy the function of achieving predetermined goals and subgoals. The systems components for prevocational training and development of the long-term unemployed are: training lines or "tool stations"; "backup classes"; remedial classes; and social skills seminars.

1. The Training Line—The backbone of the system is a simulated job environment which consists of a series of physical learning units called learning stations or "tool stations". Following the principle of proceeding from the simple to the complex, units to tasks are added to each station. Since trainees are helped to realize success immediately, a motivational thrust is given to an individual whose previous experience has been failure among a population which is characterized as "immediate-gratification oriented". Accomplishments at each station are visible and concrete, and trainees are able to perceive success. Trainees must demonstrate proficiency at each "step-off point" in a simulated job-related context with regards to (a) manual skills, (b) communication skills, (c) social skills, and (d) stress tolerance. Each trainee is required to monitor, i.e., he is assigned a specific teaching responsibility at each learning station. This provides for increased status and reinforcement of learning. The training method employed is the Six Step Method of instruction. The Six Step Method, a "conditioning learning process" involves:

Step One—Instructor Demonstration
The instructor demonstrates the task to be performed, at normal speed, while discussing the relationship of this task to others prior to and following it in the learning sequence. The trainee observes his actions and listens.

Step Two—Instructor Talk-Through
The instructor repeats the task, this time at very slow speed, and repeats the step-by-step process verbally. He may stop at appropriate points to allow trainees to inspect his actions. Trainees observe, listen, and ask questions related to the process.

Step Three—Instructor-Trainee Talk-Through
The instructor performs the procedure again, while the trainee repeats verbally the step-by-step procedure. The instructor corrects any errors in the trainee's verbalization.

Step Four—Trainee-Instructor Talk-Through
The trainee verbalizes each procedure. If correct, the instructor performs the right action. (Note: The instructor does NOT demonstrate or verbalize the wrong procedure at any time). The remaining trainees in the learning group observe the learning trainee and ask questions.

Step Five—Trainee Talk-Through
The trainee steps up to the equipment, verbalizes each step, then performs the required actions. The instructor observes and listens, making corrections where necessary. The other trainees in the training groups observe, listen, and ask questions.

Step Six—Graded Practice
The trainee performs the procedure without coaching or assistance, and is required, within three trials, to perform the required task at industry speed and proficiency.

2. The Backup Classes—The backup class, the second system components, is closely correlated with the learning stations. Using the trainee project as the principle activity, trainees learn what to expect at upcoming learning stations. The tasks which must be carried out to

complete the projects are highly proceduralized. There is a statement of project objectives and the activities necessary to accomplish the objectives are specified.

3. The Remedial Classes—Although each trainee has been evaluated in terms of his reading level, if he is unable to progress at a learning station because of an inability to read or solve mathematical problems, the system "ejects" him. Then aware of his own skill deficiency, the trainee is better able to see the relevance for enrolling in remedial reading or math, the third system component. The goals are a sixth grade reading proficiency and about ninth grade math achievement level.

4. Social Skills Seminars — Refered to as the "Winning Games" sessions, prepared scripts are used to dramatize problems trainees are likely to encounter on the job. Trainees portray the characters and act out the situations in the scripts. The situations depict inappropriate social behavior or failure to play the "winning game" which results in getting fired, quitting, or problems with bosses or coworkers. The seminars give the trainees an opportunity to practice decision-making in order to reach appropriate solutions to the problems. The scripts prepared by the Northern Systems Company covered such topics as:
   a) The importance of getting to work on time.
   b) If I am sick, what should I do?
   c) Gambling on the job.
   d) Drinking at work.
   e) How to ask for another job if I don't like the one I have?

B. Incentive and Reinforcement

The approach described in this paper has combined systems technology and behavioral science. The probability of the occurence of a given behavior is reinforced (rewarded) for the action. Three general forms of rewards are used to reinforce behavior within the prevocational training system. They are: creature comforts; monetary rewards; and increased status.

1. Creature Comforts—New trainees use poorly-furnished lounges with hard chairs, no rugs, and minimal comforts. The advanced trainees use nicely-furnished lounges with panelled walls, TV set, and carpeting.

2. Monetary Rewards—To insure regular daily attendance, trainees are given money on the second day of attendance as reward for attendance on the first day. Each day the money reinforces the desired effect. Beginning with the second week, trainees receive pay on a weekly basis. This frequent reinforcement (money every day) encourages the trainee (a) to become hooked on regular attendance, (b) to become hooked on having money for bus fare, meals, etc.

3. Increased Status—After the trainee has progressed to a certain level in the prevocational program he assumes the role of teacher and supervisor. He gains status in the eyes of his fellow trainees. He gains insight into what it is like to be in the shoes of the supervisor, the foreman, or the boss. While in the role of supervisor he can better judge his own behavior as a worker. This quote from Northern Systems Company literature further explains the use of rewards as incentive and reinforcement:

> The beginnings of a history of success for the trainees are supported by a system of rewards. Rewards have two purposes: (1) They can reinforce the kinds of behavior we specify for trainees; and (2) The desire for a reward can make the trainee respond more quickly in order to get the reward. If he receives a reward for a correct response, he will repeat it in order to receive another reward. An incorrect response brings no reward. The combination of demand-response sequences and a reward system makes it highly probable that trainees will acquire the kinds of behavior we specify. (Northern Systems Company: Its Role and Function, page 5.)

GENERALIZATIONS

1. Because of his special circumstances and the problems he brings to the job, the hard-to-employ individual may require special assistance in the form of prevocational training if he is to become productive.

2. Prevocational training can be useful in dealing with special problems. It may be designed to build self-confidence, to build greater communication skills and social skills, and to build basic job-related behaviors.

3. The design of a prevocational program for the hard-to-employ through a systems approach offers a high probability of replacing failure in learning with successful learning experiences.

4. Building the experience of success may be accomplished by special programming of course content to provide step-by-step progress. The person starts with the simple and proceeds to the complex.

5. Concrete tasks which enable the individual to see immediately what he has done are recommended.

6. The use of rewards and reinforcement for good behavior have been found helpful to foster motivation at the outset of a prevocational training program.

ACTION POSSIBILITIES

1. This paper has presented one workable approach to developing a prevocational training program in a company. There are also other types of training programs in use throughout the country which share the same long range goals even though their techniques for creating success may not be the same.

2. Although a systems designed prevocational training program may not be available in your area, there may be organizations you could use to obtain training in basic job related education and orientation to the world of work.

3. In designing a prevocational training program at your plant, you may consider additional consultation and assistance, National Alliance of Businessmen (NAB), the state employment service, or private management consulting firms.

IMPLEMENTATION

1. Whether you develop your own prevocational training program or use outside help will depend on the financial and personnel resources your compnay is willing to commit to the program.

2. You may wish to incorporate some of the elements described above into a training program at the company site and locations. Both off-plant and in-plant prevocational training are being used effectively. The choice of off-plant or in-plant prevocational training site will depend upon the individual company situation.

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